AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A nitride semiconductor comprising:

a substrate;

a GaN-based buffer layer formed on the substrate in any one selected from a group consisting of a three-layered structure $Al_yIn_xGa_{1-(x+y)}N/In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$ and $0 \leq y \leq 1$, a two-layered structure $In_xGa_{1-x}N/GaN$ where $\underline{0 < x \leq 1}$ $\cancel{0 \leq x \leq 1}$, and a superlattice structure of $In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$; and

a GaN-based single crystalline layer formed on the GaN-based buffer layer.

2. (Original) The nitride semiconductor of claim 1, wherein the GaN-based single crystalline layer comprises:

an indium-doped GaN layer;

an undoped GaN layer formed on the Indium-doped GaN layer; and

a silicon-doped n-GaN layer formed on the undoped GaN layer.

3. (Original) The nitride semiconductor of claim 1, wherein the GaN-based single crystalline layer comprises:

an undoped GaN layer;

an indium-doped GaN layer formed on the undoped GaN layer; and

a silicon-doped n-GaN layer formed on the indium-doped GaN layer.

4. (Currently Amended) A nitride semiconductor light emitting device comprising:

a substrate;

a GaN-based buffer layer formed on the substrate in any one selected from a group consisting of a three-layered structure $Al_yIn_xGa_{1-(x+y)}N/In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$ and $0 \leq y \leq 1$, a two-layered structure $In_xGa_{1-x}N/GaN$ where $\underline{0 < x \leq 1}$ $\cancel{0 \leq x \leq 1}$, and a superlattice structure of $In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$;

a first electrode layer of an n-GaN layer formed on the GaN-based buffer layer;

an activation layer formed on the first electrode layer; and

a second electrode layer of a p-GaN layer formed on the activation layer.

5. (Original) The nitride semiconductor light emitting device of claim 4, further comprising:

an Indium-doped GaN layer formed on the GaN-based buffer layer; and

an undoped GaN layer formed on the Indium-doped GaN layer.

6. (Original) The nitride semiconductor light emitting device of claim 4, further comprising:

an undoped GaN layer formed on the GaN-based buffer layer; and

an Indium-doped GaN layer formed on the undoped GaN layer.

7. (Currently Amended) A method for fabricating a nitride semiconductor, the method comprising the steps of:

(a) growing a GaN-based buffer layer on a substrate in any one selected from a group consisting of a three-layered structure $Al_yIn_xGa_{1-(x+y)}N/In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$ and $0 \leq y \leq 1$, a two-layered structure $In_xGa_{1-x}N/GaN$ where $\underline{0 < x \leq 1}$ $\cancel{0 \leq x \leq 1}$, and a superlattice structure of $In_xGa_{1-x}N/GaN$ where $0 < x \leq 1$; and

(b) growing a GaN-based single crystalline layer on the grown GaN-based buffer layer.

8. (Original) The method of claim 7, wherein the GaN-based buffer layer is grown in an MOCVD equipment at a temperature of 500 – 800 °C and in a thickness of 50 – 800 Å by introducing sources of TMGa, TMIn and TMAl and a gas of NH_3 at the same time while supplying carrier gases of H_2 and N_2.

9. (Previously Presented) The method of claim 8, wherein the GaN-based buffer layer is grown under a condition that flow of the sources of TMGa, TMIn and TMAl is 5 – 300 μmol/min and growing pressure is 100 – 700 torr.

10. (Original) The method of claim 7, wherein the step (b) comprises the steps of:

growing an Indium-doped GaN layer;

growing an undoped GaN layer on the Indium-doped GaN layer; and

growing a silicon-doped n-GaN layer on the undoped GaN layer.

11. (Original) The method of claim 7, wherein the step (b) comprises the steps of:

growing an undoped GaN layer;

growing an Indium-doped GaN layer on the undoped GaN layer; and

growing a silicon-doped n-GaN layer on the Indium-doped GaN layer.

12. (Previously Presented) The nitride semiconductor of claim 1, wherein the GaN-based buffer layer is grown in an MOCVD equipment at a temperature of 500 – 800 °C and in a thickness of 50 – 800 Å by introducing sources of TMGa, TMIn and TMAl and a gas of NH_3 at the same time while supplying carrier gases of H_2 and N_2.

13. (Previously Presented) The nitride semiconductor of claim 12, wherein the GaN-based buffer layer is grown under a condition that flow of the sources of TMGa, TMIn and TMAl is 5 – 300 μmol/min and growing pressure is 100 – 700 torr.

14. (Previously Presented) The nitride semiconductor light emitting device of claim 4, wherein the GaN-based buffer layer is grown in an MOCVD equipment at a temperature of 500 – 800 °C and in a thickness of 50 – 800 Å by introducing sources of TMGa, TMIn and TMAl and a gas of NH_3 at the same time while supplying carrier gases of H_2 and N_2.

15. (Previously Presented) The nitride semiconductor light emitting device of claim 14, wherein the GaN-based buffer layer is grown under a condition that flow of the sources of TMGa, TMIn and TMAl is 5 – 300 μmol/min and growing pressure is 100 – 700 torr.